

# **SNF Stabilization and Disposition (RL-0012)**

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***KBC Project – Multi-Canister  
Overpack shipment***

***Sludge Treatment Project –  
Knock-out Pot (KOP) Mockup***



***K East D&D –  
Physical demolition of K East  
Superstructure complete***

## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel (SNF) Stabilization and Disposition*. There are three major components to this work scope:

- K Basins Closure Project (KBC) [M. W. Peres].
- Sludge Treatment Project (STP) [D. G. Ruscitto].
- K East Basin Deactivation and Decommissioning (D&D) [R. E. Wilkinson].

NOTE: Unless otherwise noted, all information contained herein is as of the end of August 2008.

## Notable Accomplishments

- **K East D&D Project (D&D)**
  - Final IP-2 shipment to Central Waste Complex was completed August 25, 2008.
  - Transmitted facility downgrade and PI completion letters to RL.
  - All actions complete.
- **KBC Project – Legacy Fuel Removal**
  - Shipped Multi-Canister Overpack (MCO) #387 to Cold Vacuum Drying Facility (CVDF).
- **Sludge Treatment Project (STP)**
  - Meeting with RL, EPA, DNFSB, and CBFO/CCP representatives to describe the scope of the STP and the technical challenges being faced. Also toured the Maintenance and Storage Facility (MASF) test facility.
  - Completed 30 percent Design on the container retrieval system.
  - Completed Phase 1 inspection of the Knock-Out Pot (KOP) strainers/filters for volume and radiation measurements.
  - Completed preparation of STP Quality Assurance Program Plan (QAPP).

## Issues

- **K East D&D Project**
  - None identified at this time.
- **KBC Project**
  - Major fuel processing equipment failures.
  - MCO minimum weight.
- **STP**
  - Funding for FY 2009/FY 2010 based on project priorities.
  - Uncertainty in disposal path for KOP sludge to suspend commingling with Settler Sludge.
  - Central Characterization Project (CCP) contracted with Waste Isolation Pilot Plant (WIPP); liaison impacts design (shifting Waste Acceptance Criteria [WAC] direction from DOE).
  - Addressing potential for new remote-handled transuranic (RH-TRU) waste storage facility.
  - Defensible down-select of STP alternatives.

## FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
SNF Stabilization & Disposition	\$ 107.6	\$ 109.0	\$ -1.4

SNF Stabilization & Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$8.2	\$9.0	\$7.7	\$0.8	10.1%	\$1.3	14.6%	\$100.5
Cumulative-to-Date (FY 2004 - Present)	\$586.7	\$582.4	\$657.2	-\$4.3	-0.7%	-\$74.8	-12.8%	\$599.6

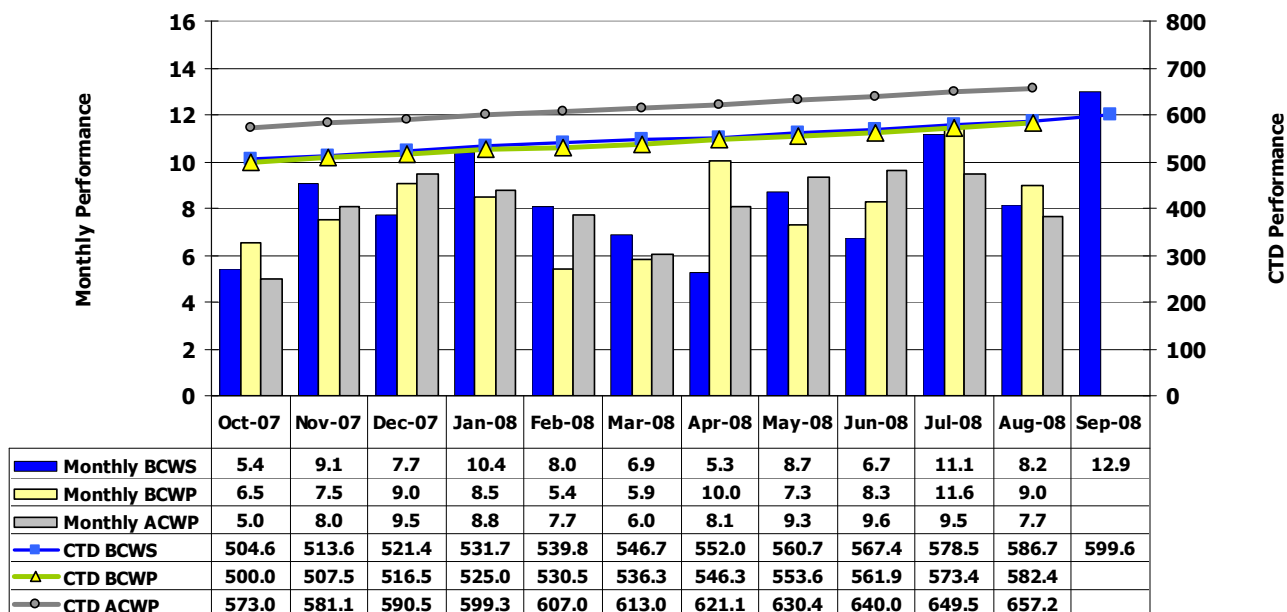
Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

## Schedule/Cost Performance (\$M)

- **CTD Schedule Performance (-\$4.3M/-0.7%):** Unfavorable SV is due to: delays in the STP due to slow start to Pacific Northwest National Laboratory (PNNL) activities for M-1 Loop, Knock-out Pot (KOP) retrieval design did not start as soon as planned, testing activities Statements of Work (SOWs), and KOP to MCO documentation; delays in Legacy Fuel work scope (MCO processing); and K East to K West Sludge Transfer System D&D. K East D&D demolition activities are behind due to asbestos abatement and weather delays.
- **CTD Cost Performance (-\$74.8M/-12.8%):** The unfavorable CV is primarily due to problems encountered in design, implementation, startup, and operation of spent fuel removal, sludge containerization, and transfer systems. System complexity and requirements were underestimated. Most of the cost variances were incurred prior to FY 2006.

## Schedule/Cost Performance (\$M), continued

### Performance Analysis CTD and Monthly (\$M)



## Milestone Achievement

*Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) milestones and Defense Nuclear Facilities Safety Board (DNFSB) commitments represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone/DNFSB commitment information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of Baseline Change Requests (BCRs) approved during the reporting period.

Number	Title	Type (TPA/PI/DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05	10/20/06		Complete
DNFSB 119E (S10-05-014)	Complete K East Bulk Sludge Consolidation	DNFSB	10/31/06	10/20/06		Complete
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	05/31/07	05/31/07		Complete
DNFSB 120E (S10-05-015)	Complete K East Basin Containerized Sludge Removal	DNFSB	05/31/07	05/31/07		Complete
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07	05/31/07		Complete
M-034-35a (S10-05-011)	Containerize K West Bulk Sludge	TPA	07/31/07	07/03/07		Complete
DNFSB 119W (S10-05-016)	Complete K West Bulk Sludge Containerization	DNFSB	07/31/07	07/03/07		Complete
M-034-35b (S10-05-011)	Complete K West Final Pass	TPA	01/31/08	12/27/07		Complete

\* DNFSB dates reflect Implementation Plan update, TPA dates reflect change package M-34-05-04.